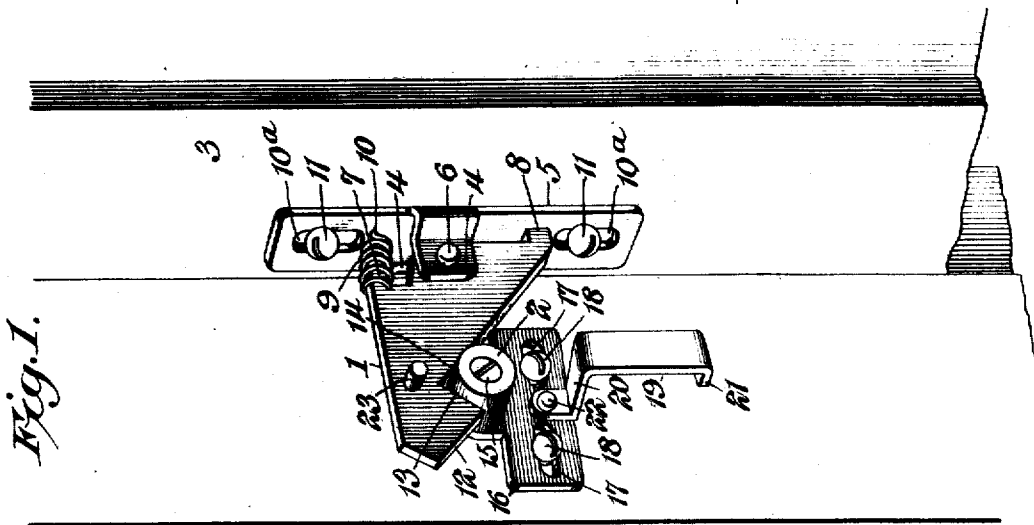
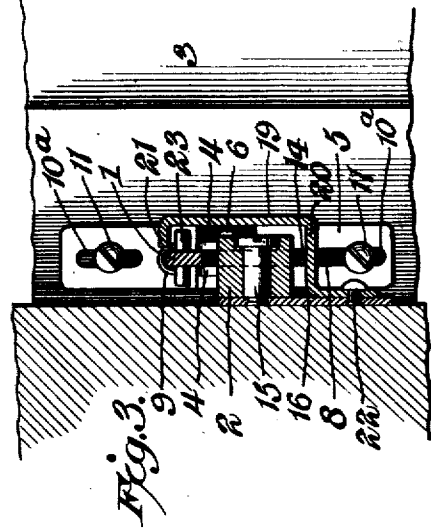
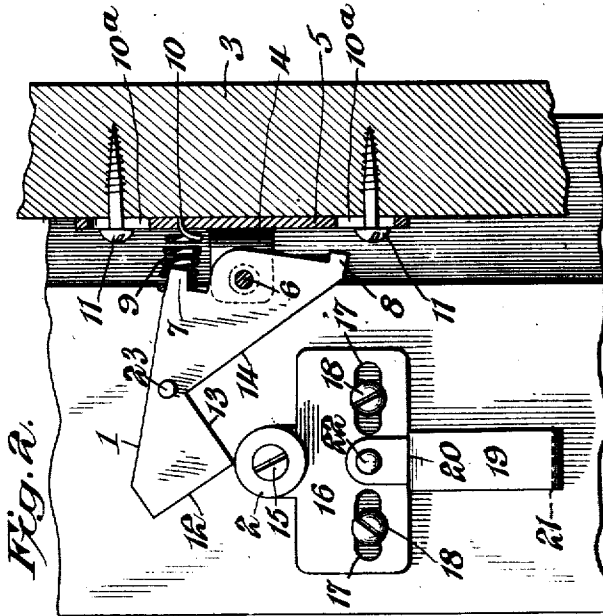


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DOOR LATCH.
APPLICATION FILED AUG. 16, 1909.

954,324.

Patented Apr. 5, 1910.
2 SHEETS—SHEET 1.



Witnesses

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W. A. MOONEY.
DOOR LATCH.

APPLICATION FILED AUG. 18, 1909.

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2 SHEETS—SHEET 2.

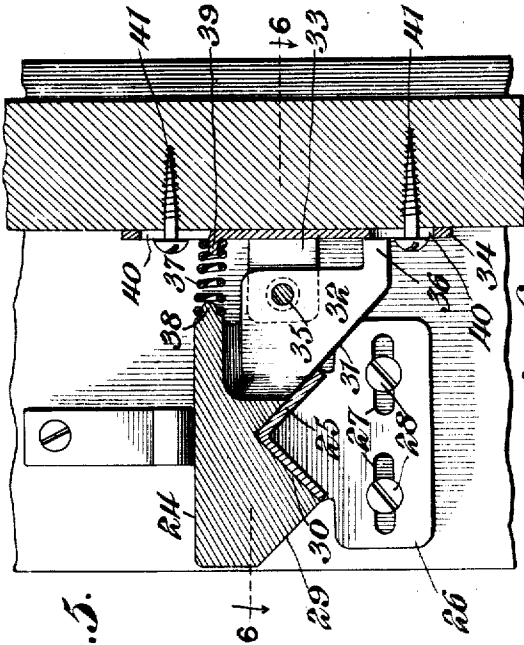


Fig. 5.

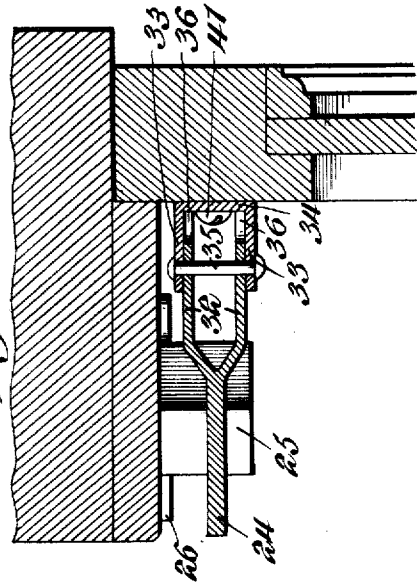


Fig. 6.

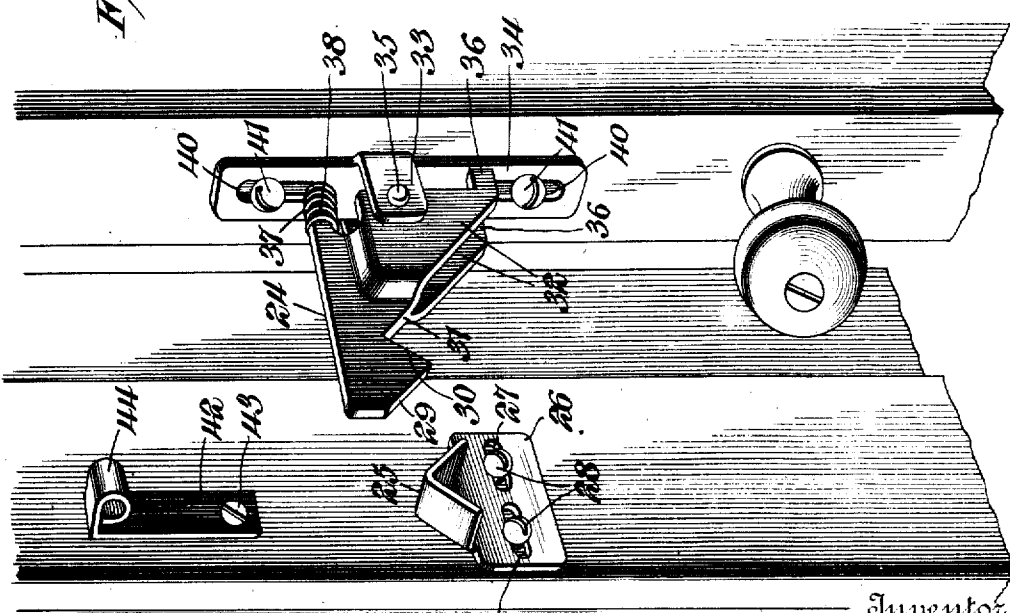


Fig. 4.

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UNITED STATES PATENT OFFICE.

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DOOR-LATCH.

954,324.

Specification of Letters Patent.

Patented Apr. 5, 1910.

Application filed August 16, 1909. Serial No. 513,130.

To all whom it may concern:

Be it known that I, WILLIAM A. MOONEY, a citizen of the United States, residing at Richmond, in the county of Henrico and State of Virginia, have invented a new and useful Door-Latch, of which the following is a specification.

The invention relates to improvements in door latches.

The object of the present invention is to improve the construction of door latches, and to provide a simple inexpensive and efficient construction, designed for use on screen doors, house doors, gates and the like where an ordinary fastener can be employed, and adapted to enable a door to be opened and closed without lifting the latch.

A further object of the invention is to provide a door latch of this character, adapted, when a door is shut, to hold the same tightly in such position until the door is either pushed or pulled open with the required force.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings:—Figure 1 is a perspective view of a door latch, constructed in accordance with this invention; Fig. 2 is a side elevation, partly in section. Fig. 3 is a transverse sectional view. Fig. 4 is a perspective view of the latch, showing another form of the invention. Fig. 5 is a longitudinal sectional view of the latch illustrated in Fig. 4. Fig. 6 is a horizontal sectional view on the line 6—6 of Fig. 5.

Like numerals of reference designate corresponding parts in all the figures of the drawings.

In the embodiment of the invention illustrated in Figs. 1 to 3 inclusive, a pivoted hook or latch member 1 co-acts with a keeper, equipped with a horizontally disposed roller 2, adapted to facilitate the opening and closing of the door 3 to which the latch is applied. The latch, which is de-

signed for various kinds of doors, such as screen doors, house doors, closet doors, and the like, may be constructed heavier and employed with equal facility on gates and similar closures, and the hook 1, which may be constructed of any suitable material, has a general outward taper, and is pivoted at its inner enlarged end between a pair of projecting ears or flanges 4 of an attachment plate 5.

The hook 1, as shown in Figs. 1 to 3 inclusive, consists of a thin metallic plate, and the pivot 6, which pierces the ears or flanges 4, is located at an intermediate point at the top and bottom of the inner end of the hook. The ears or flanges 4 are bent inwardly adjacent to the attachment plate to arrange their supporting portions the proper distance apart to correspond to the thickness of the hook 1, which fits snugly between the outer portions of the ears or flanges 4. The inner end of the hook is provided at the top and bottom with upper and lower horizontal lugs 7 and 8, the lower lug 8 being normally maintained in engagement with the lower portion of the attachment plate by a coiled spring 9, having its outer portion disposed on the upper lug and secured at its inner end 10 to the attachment plate, which is preferably provided with a perforation for the reception of the adjacent end of the spring. The spring is compressible to permit the hook to swing upward on the pivot 4 to engage with and disengage itself from the roller 2 of the keeper. The hook has a straight vertical rear edge and is provided at the top thereof with a recess in which the upper lug is arranged. The attachment plate 5 is provided with upper and lower vertical slots 10* for the reception of screws 11 for securing the attachment plate to the door 3. The slots and the screws permit a vertical adjustment of the hook to arrange the same in proper position for engagement with the roller 2 of the keeper.

The pivoted latch member or hook 1 is provided at its outer end with an inclined edge 12, extending downwardly and inwardly from the extremity of the hook and adapted to be carried by the closing movement of the door into engagement with the roller 2, and capable of enabling the latch member to be readily swung upward by such closing movement to engage the roller with a substantially V-shaped recess, located at

the lower edge of the hook. The V-shaped recess forms oppositely inclined edges 13 and 14, which engage the roller 2 at the inner and outer sides thereof. The outer inclined edge or wall of the V-shaped recess permits the door to be readily opened, when the proper force is applied, and the inner edge or wall 14 of the V-shaped recess co-operates with the inner wall 13 to hold it tightly in its closed position. The opening and closing of the door is effected without lifting the latch, which is adapted to co-operate with spring hinges with which screen doors are ordinarily equipped, and when the door is closed by such spring hinges, the latch will automatically engage its keeper and hold the door in such position.

The horizontally disposed roller 2 is mounted on a headed stud 15, suitably fixed to an attaching plate 16, provided with horizontal slots 17, receiving screws 18 and adapted to permit the attaching plate 16 to be adjusted toward and from the latch. The horizontal adjustment of the attaching plate 16 and the vertical adjustment of the attaching plate 5 will enable the parts to be readily mounted on a door and the door frame or casing, and positioned properly with relation to each other.

The door latch is equipped with a locking member 19, consisting of a bar or piece having a substantially L-shaped arm 20 at one end and provided at its other end with an inwardly extending lug 21. The L-shaped arm is pivoted between the slots 17 by a pin or rivet 22, and the inwardly extending lug is adapted to engage over the stud 23 of the member or hook 1, as clearly illustrated in Fig. 3 of the drawings, whereby the latch member or hook is held against upward movement and is prevented from becoming disengaged from the keeper. The stud 23 is preferably formed by a pin, piercing the hook above the apex of the V-shaped recess and extending from opposite sides of the hook, whereby the latch is reversible for either right or left hand doors. When the locking member 19 is not in use, it hangs down beneath the keeper and is out of the way.

In Figs. 4 to 6 inclusive is illustrated another embodiment of the invention in which the hook 24 co-operates with a V-shaped flange 25 of a keeper. The V-shaped flange 25 is preferably formed integral with and located at the top of an attaching plate 26, having horizontal slots 27 and adjustably secured to the door frame or casing by screws 28.

The latch member or hook 24 is provided with an outer inclined edge 29, and it has a lower V-shaped recess forming oppositely inclined edges 30 and 31. The inner end of the latch member or hook is provided at the

lower portion with spaced sides 32, pivoted between ears or flanges 33 of an attaching plate 34 by a transverse pin 35, or other suitable fastening device. The sides 32 are equipped with spaced lower lugs 36, and a coiled spring 37 is interposed between the attaching plate and the upper portion of the latch member or hook, which is provided with an upper lug 38 for the reception of the adjacent end of the spring. The upper lug is located in the recess at the top of the rear edge of the hook. The inner end of the spring is mounted on the projection 39, extending from the attaching plate and formed integral with the same, consisting of a portion of the metal cut to provide the upper slot 40. The attaching plate has upper and lower slots 40 and is secured to the lower casing by adjusting screws 41.

The latch member or hook automatically engages with the V-shaped flange and disengages itself therefrom, and it may be locked in engagement with the flange by a locking member 42, consisting of a bar or piece pivoted by a screw 43, or other suitable fastening device to the door frame or casing and provided with an arm 44, arranged to engage the upper edge of the hook 24, as clearly illustrated in Fig. 5 of the drawings, to prevent the said hook from being raised.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. A door latch including a vertical attaching plate provided at an intermediate point with spaced integral horizontally aligned ears, an approximately triangular hook extending horizontally from and pivoted at its inner end between the ears of the attaching plate and having a straight vertical rear edge and recessed at the upper portion thereof and provided above and below the ears with spaced horizontally projecting lugs, the upper lug being located in the said recess at the top of the hook and spaced from the attaching portion, and the lower lug being arranged at right angles to and extending beyond the rear edge of the hook and abutting against the attaching plate when the hook is in a horizontal position, said hook being also provided in its lower edge with a V-shaped recess forming inner and outer oppositely inclined edges, the inner edge being straight and continuously inclined from the outer edge of the recess to the lower lug, and the outer end edge of the hook being inclined downwardly and inwardly, and a coiled spring located in the recess of the top of the hook and fitted on the upper lug and interposed between the same and the attaching plate to hold the latter lug normally against the said plate.

2. A door latch including a latch member, a keeper engaged by the latch member and

located beneath the same, and a locking member pivoted at a point below the latch member and having a projecting portion and adapted to be swung upward to engage
5 such projecting portion with the latch member to prevent the latter from being disengaged from the keeper.

3. A door latch including a latch member provided with a laterally extending projection, a keeper engaged by the latch member and located beneath the same, and a locking member pivoted to the keeper at a point below the latch member and having a projecting portion and adapted to be
10 swung upward to engage such projecting portion with the projection of the latch member to prevent the latter from being disengaged from the keeper.

4. A door latch of the class described including a reversible latch member provided
20 at opposite sides with laterally projecting studs, a keeper located beneath and engaged by the latch member, and a locking member

pivoted to the keeper at a point below the latch member and having an engaging portion and adapted to be swung upward into engagement with the adjacent stud to prevent the latch member from being lifted
25 out of engagement with the keeper.

5. A door latch including a pivoted hook
30 arranged in approximately a horizontal position and provided with a laterally projecting stud, a keeper located beneath and engaging with the hook, and a pivotal locking member mounted on the keeper below
35 the latch member and provided at one end with an approximately L-shaped arm and having a projecting flange at the other end to engage with the lug.

In testimony, that I claim the foregoing
40 as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM AGUSTINE MOONEY.

Witnesses:

JAMES H. FRASER,
C. R. LANE.